

What is claimed

1           1. A process for execution on a computer to assist a user in making and  
2 validating IT service requests, comprising the steps of:  
3           1) displaying an IT services catalog;  
4           2) determining if a user that wishes to order an IT service selects an  
5 option for computer assistance in selecting a service action;  
6           3) if a user requests assistance, displaying questions in an order  
7 dictated by a decision tree defined in advance by an IT professional, and  
8 traversing said decision tree based upon answers provided by the user via  
9 said computer input devices until one or more recommendations for service  
10 actions have been encountered;  
11           4) gathering all recommended service actions and filling in fields in a  
12 data structure based upon answers given by said user;  
13           5) upon completion of step 4, or if said user does not request  
14 assistance in step 2, soliciting said user to fill in all unpopulated fields of a  
15 data structure defining one or more service actions which are either  
16 selected by said user or which have been recommended by processing  
17 said decision tree and validating all user data input.

1           2. The process of claim 1 wherein step 3 further comprises the step of  
2 validating each answer provided by a user using constraints and/or validation  
3 formulas, and rejecting the answer and providing the user with a chance to provide  
4 the answer again if the constraints are violated or the results of evaluating said  
5 validation formula indicates the answer is invalid.

1           3. The process of claim 2 wherein said validation process validates the  
2 answers given against constraints and/or the results of evaluating validation

3 formulas stored in attributes of a data field in a data structure pertaining to the  
4 answer.

1 4. The process of claim 2 wherein said validation process validates the  
2 answers given against constraints and/or the results of evaluating validation  
3 formulas stored in a service advisor which is providing assistance to said user,  
4 said constraints and/or validation formulas having been defined in advance by an  
5 IT professional when said service advisor was written.

1 5. The process of claim 1 wherein step 4 comprises the step of said  
2 computer automatically filling in fields in the data structures of one or more service  
3 action recommended by traversing said decision tree based upon answers  
4 supplied by said user.

1 6. The process of claim 1 wherein step 5 is implemented by displaying a  
2 dialog box for each unpopulated field of one or more data structures defining said  
3 one or more recommended or user selected service actions, and supplying a  
4 suggested answer as a default based upon configuration attribute data of each  
5 said field defined by an IT professional when said service action was defined.

1 7. A process for execution on a computer to assist a user in making and  
2 validating IT service requests, comprising the steps of:

3 (1) displaying on a computer an IT services catalog which contains  
4 all the IT services that are available to order;

5 (2) determining if a user who wishes to order an IT service knows the  
6 appropriate service action to select to create an instance of the desired IT  
7 service;

8 (3) if the user does not know the appropriate service action to select  
9 or simply chooses to pick a service advisor, launching a service advisor

10 program in accordance with the user's selection, said service advisor  
11 implementing a decision tree which has IT services as its "leaves";

12 (4) looking up and displaying on said computer a first dialog box or  
13 other means of soliciting information from said user about the desired IT  
14 service by asking one or more questions;

15 (5) receiving user responses to said one or more questions via said  
16 computer, and validating said responses, and using the answer(s) to vector  
17 processing to and displaying on said computer another dialog box or other  
18 means of soliciting information from said user about the desired IT service;

19 (6) repeating the process of displaying questions and receiving  
20 responses and validating said responses and vectoring processing to the  
21 next question(s) based upon the response(s) to the previous question(s)  
22 until one or more recommendations for IT service actions are encountered  
23 in said decision tree;

24 (7) gathering all recommendations of any service action(s)  
25 encountered in traversing said decision tree in response to answers  
26 entered by said user;

27 (8) using said computer to automatically fill in all fields of one or  
28 more data structures defining one or more service actions recommended  
29 by said service advisor using information entered by said user in response  
30 to questions posed while traversing said decision tree;

31 (9) upon completion of step 8 or if the user does not pick a service  
32 advisor in step 3, using said computer to solicit said user to fill in any empty  
33 data fields including relationship fields of said one or more data structures  
34 defining one or more service actions recommended by said service advisor  
35 which were not filled in automatically by said computer and receiving  
36 information entered by said user and validating said data entered by said  
37 user and storing said data in the appropriate fields of said one or more data  
38 structures.

1           8. The process of claim 7 wherein step 9 comprises the step of:  
2                 automatically filling in any unpopulated relationship fields with  
3           pointers to the appropriate service action and/or IT resource based upon  
4           answers previously entered in response to questions posed by said service  
5           advisor if said user selected a service action, or filling in said unpopulated  
6           relationship field with data supplied by said user if said user did not select a  
7           service advisor.

1           9. The process of claim 7 wherein the validation processes in step 4 and 5  
2           comprise the steps of validating user input based upon constraints and/or  
3           validation formulas stored in attributes of fields in a data structure defining a  
4           service action in which the data being validated is to be stored.

1           10. The process of claim 7 wherein the validation processes in step 4 and  
2           5 comprise the steps of validating user input based upon constraints and/or  
3           validation formulas stored in said service advisor by an IT professional who  
4           defines said service advisor.

1           11. The process of claim 7 wherein the steps of posing questions to said  
2           user are implemented by displaying dialog boxes which pose questions and  
3           provide icons which can be selected or fields which can be filled in by the user to  
4           reply to said questions.

1           12. An apparatus comprising:  
2                 a computer programmed with an operating system;  
3                 an application program programmed on said computer and  
4                 structured to control said computer to perform the following steps:

- 5                           1) displaying an IT services catalog;
- 6                           2) determining if a user that wishes to order an IT
- 7                           service selects an option for computer assistance in selecting
- 8                           a service action;
- 9                           3) if a user requests assistance, displaying questions
- 10                          in an order dictated by a decision tree defined in advance by an
- 11                          IT professional, and traversing said decision tree based upon
- 12                          answers provided by the user via said computer input devices
- 13                          until one or more recommendations for service actions have
- 14                          been encountered;
- 15                          4) gathering all recommended service actions and
- 16                          filling in fields in a data structure based upon answers given
- 17                          by said user;
- 18                          5) upon completion of step 4, or if said user does not
- 19                          request assistance in step 2, soliciting said user to fill in all
- 20                          unpopulated fields of a data structure defining one or more
- 21                          service actions which are either selected by said user or which
- 22                          have been recommended by processing said decision tree
- 23                          and validating all user data input.

- 1           13. An apparatus comprising:
- 2               a computer programmed with an operating system;
- 3               an application program programmed on said computer and
- 4               structured to control said computer to perform the following steps:
- 5                   (1) displaying on a computer an IT services catalog
- 6                   which contains all the IT services that are available to order;
- 7                   (2) determining if a user who wishes to order an IT
- 8                   service knows the appropriate service action to select to
- 9                   create an instance of the desired IT service;

10 (3) if the user does not know the appropriate service  
11 action to select or simply chooses to pick a service advisor,  
12 launching a service advisor program in accordance with the  
13 user's selection, said service advisor implementing a decision  
14 tree which has IT services as its "leaves";

15 (4) looking up and displaying on said computer a first  
16 dialog box or other means of soliciting information from said  
17 user about the desired IT service by asking one or more  
18 questions;

19 (5) receiving user responses to said one or more  
20 questions via said computer, and validating said responses,  
21 and using the answer(s) to vector processing to and  
22 displaying on said computer another dialog box or other  
23 means of soliciting information from said user about the  
24 desired IT service;

25 (6) repeating the process of displaying questions and  
26 receiving responses and validating said responses and  
27 vectoring processing to the next question(s) based upon the  
28 response(s) to the previous question(s) until one or more  
29 recommendations for IT service actions are encountered in  
30 said decision tree;

31 (7) gathering all recommendations of any service  
32 action(s) encountered in traversing said decision tree in  
33 response to answers entered by said user;

34 (8) using said computer to automatically fill in all fields  
35 of one or more data structures defining one or more service  
36 actions recommended by said service advisor using  
37 information entered by said user in response to questions  
38 posed while traversing said decision tree;

39 (9) upon completion of step 8 or if the user does not  
40 pick a service advisor in step 3, using said computer to solicit  
41 said user to fill in any empty data fields including relationship  
42 fields of said one or more data structures defining one or more  
43 service actions recommended by said service advisor which  
44 were not filled in automatically by said computer and receiving  
45 information entered by said user and validating said data  
46 entered by said user and storing said data in the appropriate  
47 fields of said one or more data structures.

1 14. A computer readable medium having computer executable instructions  
2 stored thereon which are capable of controlling a computer to perform the  
3 following method:

4 1) displaying an IT services catalog;  
5 2) determining if a user that wishes to order an IT service selects an option  
6 for computer assistance in selecting a service action;

7 3) if a user requests assistance, displaying questions in an order dictated  
8 by a decision tree defined in advance by an IT professional, and traversing said  
9 decision tree based upon answers provided by the user via said computer input  
10 devices until one or more recommendations for service actions have been  
11 encountered;

12 4) gathering all recommended service actions and filling in fields in a data  
13 structure based upon answers given by said user;

14 5) upon completion of step 4, or if said user does not request assistance in  
15 step 2, soliciting said user to fill in all unpopulated fields of a data structure  
16 defining one or more service actions which are either selected by said user or  
17 which have been recommended by processing said decision tree and validating  
18 all user data input.

1           15. The computer readable medium of claim 14 having further computer  
2     executable instructions stored thereon which are capable of controlling a computer  
3     to perform the additional steps of validating data provided by said user whether in  
4     answer to questions posed while traversing said decision tree or in response to  
5     solicitations displayed by said computer in performing step 5.